5.10 PALEONTOLOGICAL RESOURCES

5.10.1 Introduction and Methodology

The FSEIR #01-01 states that paleontological resources impacts would occur when earthwork activities cut into geological formations and destroy the buried fossil remains within the EastLake Vistas project area. Areas of the Otay Formation may be exposed during grading and construction activities. Exposure of this formation would likely result in the unearthing of fossil remains, which could damage the fossils if they were not recovered and salvaged. In order to mitigate for these impacts, mitigation, in the form of paleontological monitoring, would be necessary.

5.10.2 Existing Conditions

The Otay Formation underlies the entire EastLake III project area. This formation possesses potentially high sensitivity for paleontological resources. During the mass excavation work for the initial phases of the EastLake development, well-preserved fossil remains of early vertebrate animals were unearthed and salvaged. These fossils are approximately 27-28 million years old and include remains of tortoises, lizards, birds and a variety of mammals. These recovered fossil remains represent significant contributions to California paleontology. These fossil deposits are considered to be the richest such deposits in California for late Oligocene fossil vertebrates (FSEIR #01-01, 2001).

The majority of the EastLake fossil remains were recovered from the Otay Formation. Fossils were also found in the underlying Sweetwater Formation beneath the Otay Formation.

5.10.3 Thresholds of Significance

According to the significance criteria included in Appendix G of the CEQA guidelines, impacts to paleontological resources would be significant if the proposed action would result in the following:

1) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

5.10.4 Environmental Impacts

Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

A majority of the grading activity onsite would impact the existing building pad structure which is situated on already disturbed soils. However, during construction, boring of the building column holes may result in impacts to previously undisturbed soils underneath the existing building pad structure. This would result in a potentially significant impact.

Optional Construction Road. Construction of the proposed construction access road would impact areas already graded/disturbed as components of the original site preparation. Therefore, impacts to paleontological resources would not occur.

Optional Pedestrian Trail. The proposed trail would be located on a previously undisturbed hillside. Due to this hillside's location on Sweetwater and/or Otay Formations, paleontological resources could potentially be disturbed during construction of the trail. This would result in a significant impact. Mitigation is provided in order to reduce this potential impact to a level below significance.

5.10.5 Level of Significance Prior to Mitigation

Impacts to previously undisturbed soils as a result of column borings would be a significant impact.

5.10.6 Mitigation Measures

The following mitigation measures are recommended to ensure that potential impacts from discovery of paleontological resources would be less than significant.

5.10-a Prior to issuance of a grading permit, the applicant shall confirm in writing to the City of Chula Vista that a qualified paleontologist has been retained to carry out the mitigation described herein. A qualified paleontologist is defined as an individual with a M.S. or Ph. D. in paleontology or geology who is familiar with paleontological procedures and techniques. A paleontological monitor may be retained to perform the on-site monitoring in place of the qualified paleontologist. A paleontological monitor is defined as an individual who has experience in the collection and salvage

of fossil materials and who is working under the supervision of a qualified paleontologist.

5.10-b The qualified paleontologist or paleontological monitor shall attend preconstruction meeting to consult with the grading and excavation contractors. The paleontologist's duties shall include monitoring of grading, salvaging, preparation of collected materials for storage at a scientific institution that houses paleontological collections, and preparation of a monitoring results report. For each step below, the paleontologist should present results to the City of Chula Vista for review. These duties are defined as follows:

- The paleontologist or paleontological monitor shall be on-site during the original cutting of previously undisturbed sediments of the Otay Formation to inspect cuts for fossils contained therein. The Sweetwater Formation should be monitored on an as-needed basis as determined by the paleontologist or paleontological monitor. The frequency of inspections would depend upon the rate of excavation, the materials excavated, and the abundance of fossils. The paleontologist would work with the contractor to determine the monitoring locations and amount of time necessary to ensure adequate monitoring of the project site.

- In the event that fossils are encountered, the paleontologist (or paleontological monitor) shall have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on-site.

- Fossil remains shall be cleaned, sorted, repaired, cataloged, and then stored in a local scientific institution that houses paleontological collections, such as the San Diego Natural History Museum.

- A monitoring results report with appropriate graphics summarizing the results (even if negative), analyses, and conclusions of the above program shall be prepared and submitted to the City of Chula Vista within 90 days following the termination of the paleontological monitoring program.

5.10.7 Significance of Impacts after Mitigation

Implementation of Mitigation Measures 5.10-a and 5.10-b would reduce significant impacts related to paleontological resources to below a level of significance.